

ABSTRACT OF THE DISCLOSURE

Optical processing apparatus for processing a stream of light. The apparatus includes a light input emitted, for example, by fiber optic cable. Multiple wavelength bands of light are, typically, emitted and transmitted in a direction parallel to an axis. The apparatus also includes a plurality of receptors which are positioned at defined locations spaced from one another. A diffracting member is employed to diffract the wavelength bands of light transmitted parallel to the axis. In one embodiment of the invention, the diffracting member is a controllable diffraction grating. The wavelength bands are selectively diffracted to various of the receptors. The apparatus further includes a controller for selectively adjusting the diffracting member to independently vary a particular receptor to which any one wavelength band is diffracted.